

1937

PART 1

REPORT ON

GEOCHEMICAL AND MAGNETOMETER SURVEYS

ROSCOE LAKE PROPERTY

PATHFINDER URANIUM & NICKEL MINES LTD.

AGILIS EXPLORATION SERVICES LTD.

FEBRUARY 7, 1969

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Maps

Scale

Base Map	1 inch equals 400 feet
Geochemical Survey	1 inch equals 400 feet
Magnetometer Survey	1 inch equals 400 feet

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **1937A** MAP _____

REPORT ON
GEOCHEMICAL AND MAGNETOMETER SURVEYS
ROSCOE LAKE PROPERTY
PATHFINDER URANIUM & NICKEL MINES LTD.

INTRODUCTION:

The Roscoe Lake Property comprises 64 contiguous mineral claims located in the favorable Highland Valley area of British Columbia.

Previous work on the property consisted of reconnaissance geochemical, magnetometer and induced polarization surveys followed by a limited amount of stripping and drilling.

The present geochemical and magnetometer surveys carried out in December 1968, were designed to re-examine a favorable area in the western portion of the claims.

LOCATION AND ACCESS:

The claims are situated approximately 16 miles due ^{west} of Spences Bridge with co-ordinates 50° 23' north latitude, 120° 59' west longitude.

Access is by gravel road from either Spences Bridge - Merritt Highway to the south or the Highland Valley road to the north.

PHYSIOGRAPHY:

The claims lie at an elevation of 5300 feet above sea level and local relief is slight.

The region is lightly timbered with very little underbrush and extensive areas of swamp.

Overburden is moderate except where glacial features are present.

CLAIMS:

The property consists of the following 64 full-sized claims in the Kamloops Mining Division.

<u>Claim</u>	<u>Record Number</u>
Price 1 - 14	49639 - 49652
Price 15 - 28	49610 - 49623
Price 29 - 38	49653 - 49662
Price 47 - 53	49624 - 49630
Price 54	50071
Price 55 - 58	49631 - 49634
Price 1 - 3	50068 - 50070
Price 152 - 158	50072 - 50078
Price 163 - 166	50079 - 50082

PREVIOUS WORK:

In 1965, geochemical and magnetometer surveys were carried out over most of the property with limited follow-up induced polarization surveys in the areas of interest. A limited amount of drilling was done but results were apparently not encouraging.

The area included in the present survey was not completely covered by the previous geochemical and magnetometer surveys and only one small anomaly had been investigated by induced polarization and drilling. It was therefore felt that it might be beneficial to re-assess this portion of the property.

GEOLOGY:

Since there was considerable snow on the ground during these surveys it was not possible to carry out geological mapping.

However a generalized picture can be given on the basis of previous work in the area.

The property is situated near the center of the Guichon batholith and is underlain by at least two phases of the batholith. The younger Bethsaida granodiorite underlies the western part with favorable Skeena quartz diorite or Bethlehem phase to the east. The contact crosses the property in an approximately north-south direction but it's exact position has not been defined.

GEOCHEMICAL SURVEY:

Control Grid:

A one mile baseline was established running north-south through the center of the survey area, with two tielines located 2000 feet to the east and west for added control. Crosslines were run at 400 foot intervals and tied into the baseline and tielines.

All lines were run using chain and compass and cleared for easy traversing, with stations marked at each sample location for future reference.

A total of 3 miles of base and tie lines were cut and $14\frac{1}{2}$ line-miles of cross-lines sampled at 200 foot intervals.

Sampling Procedure:

An auger was used to collect the samples, which were taken, wherever possible, from the soil horizon immediately underlying the humous layer.

Samples generally consisted of brown clay, occasionally sandy, taken at an average depth of 12 - 18 inches. In areas of excessive swamp samples tended to have a high organic content.

At each sample location information regarding soil type, depth, vegetation and topography were recorded to be used later in interpreting the results.

Geochemical Testing:

Testing was carried out by Chemex Labs Ltd. of North Vancouver with all samples tested for total copper content by spectrographic analysis and values reported in parts per million.

Interpretation of Results:

Geochemical soil sampling in this area is strongly influenced by general topographic features, and low swampy areas, which are widespread, can produce strong anomalies. These anomalies are partially due to an actual concentration of metal ions from surrounding drainage and partially to the inability to obtain a sample free from organic material.

In order to take these factors into consideration topographic features observed from air photographs and field notes were placed on the base map. Certain features felt to be glacial in origin have also been stressed as an aid to interpretation.

Background concentrations for normal samples within the area are mostly in the 20 - 70 ppm range but can run as high as 100 ppm. Thus values of 200 ppm or over should be considered anomalous. Where swampy ground was encountered the background values can be expected to increase to three times this amount, with values of 600 ppm or over becoming anomalous.

The largest anomaly, in extent and intensity, is located east of the baseline, extending across the property in a northerly direction for approximately 4000 feet. Although this coincides closely with a swamp of the same general shape the values ranging as high as 1840 ppm can still be considered highly anomalous. The situation is further enhanced by a strong magnetic low crossing lines 16, 20 + 24N which may have some bearing upon the geochemical anomaly

which rises to 1000 ppm at this point.

To the west of the baseline on lines 16, 20 and 24N two anomalies of smaller magnitude trend in a northwesterly direction for over 1000 feet. These are in areas essentially devoid of swamp and appear to be related to a magnetic low which trends north-easterly for a short distance across the anomalies. The easternmost anomaly lies along the edge of a ridge and may have migrated slightly westward from this high ground. A fourth anomaly lying southwest of these two, again with a northwesterly trend, is of lower intensity although it covers a broad area and extends for almost 3000 feet. Further west on line 24N an even broader anomalous area measures approximately 1400 by 700 feet and rises to a peak value of 960 ppm copper. In the extreme eastern edge of the survey area, an anomaly of moderate intensity located over a possible drumlinoid feature surrounded by swamp was previously stripped and drilled with unknown results.

MAGNETOMETER SURVEY:

A magnetometer survey was carried out using the geochemical grid lines with a Sharpe MF-1 fluxgate unit. Base stations were established along the base line and drift curves plotted for each day the survey was in progress.

The object was to detect magnetic lows or depressions which in this area have been found to indicate favorable conditions when combined with the results of other surveys.

Several low trends were found to exist and their relevance to the results of the geochemical survey has already been commented upon.

Since the survey area is known to be underlain by rocks of relatively uniform composition no lithologic boundaries were expected or detected.

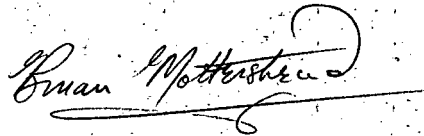
CONCLUSIONS:

Results of the geochemical survey have indicated at least five areas with anomalous copper content which were not previously investigated. In two cases these anomalies appear to be related to magnetic lows which often indicate favorable conditions in this area.

These anomalies should be further investigated by means of induced polarization techniques along lines 20, 24 and 28N west of the base line and 24, 28 and 32N east of the baseline.

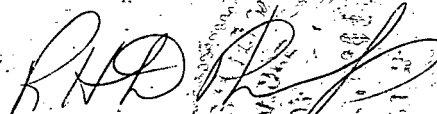
If results of this survey are favorable drilling should be initiated to further test the anomalies.

Respectfully Submitted,



Brian Mottershead

Endorsed By,



R. H. D. Philp, P. Eng.

AGILIS EXPLORATION SERVICES LTD.



Agilis Exploration Services Ltd.

CONSULTING ENGINEERS AND GEOLOGISTS

Telephone: 688 - 1508

201 - 714 WEST HASTINGS STREET, VANCOUVER 1, B.C.

June 13, 1969

Mr. Frank J. Sell,
Mining Recorder,
Court House,
Kamloops, B.C.



Dear Sir:


Re: Price, Ruby and Rose claims Geochemical
- Geophysical Report and Induced
Polarization Survey Report.

In reply to your letter dated June 3, 1969
to Mr. K. Kikegawa regarding the above assessment work
reports I wish to clarify the following points.

1. The samples were packaged in Kraft envelopes and shipped to Vancouver for drying and testing.
2. The samples were dried in an electric oven at 150° F and screened to -80 mesh.

I trust the above will provide the additional information you require.

Yours truly,


R.H.D. Philp, P.Eng.

RHDP:jiw

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.

To Wit:

In the Matter of the geochemical and magnetometer surveys on the Red, Green and Orange Groups, Highland Valley, B.C.

I, R. Philp

of 201-714 W. Hastings Street, Vancouver 1, B.C.

in the Province of British Columbia, do solemnly declare that the following personnel were employed and costs incurred in conducting the surveys.

PERSONNEL:

K. Hektor - party chief, 26 days @ \$29.03/day =	\$ 754.83
P. Van Riesen - sampler, line cutting, 22 days @ \$24.20/day =	\$ 532.50
D. Ramer - sampler, line cutting, 22 days @ \$24.20/day =	\$ 532.50
S. Scott - sampler, line cutting, 5 days @ \$24.20/day =	\$ 121.00
B. Mottershead - magnetometer operator, field supervision, 17½ days @ \$50.00/day =	\$ 875.00
R. Philp - supervision, report, 2½ days @ \$100.00/day =	\$ 250.00
K. Kikegawa & K. Hektor - drafting, 58 hours @ \$4.00/hour =	\$ 232.00
	<u>\$3297.83</u>

DISBURSEMENTS:

Supplies, gas, fuel	\$ 410.52
Groceries	\$ 220.48
Miscellaneous - freight, copy maps, etc.	\$ 101.16
Travel expenses	\$ 56.26
Geochemical testing	\$ 510.84
Truck rental	\$ 433.95
Magnetometer rental	\$ 165.00
	<u>\$1898.21</u>

Total Costs

\$5196.04

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the *City*
of *Vancouver*, in the
Province of British Columbia, this *15*
day of *May* 1969, A.D.



Julie Turner

A Commissioner for taking Affidavits for British Columbia or
A Notary Public in and for the Province of British Columbia.

★o

SUB - MINING RECORDER

In the Matter of

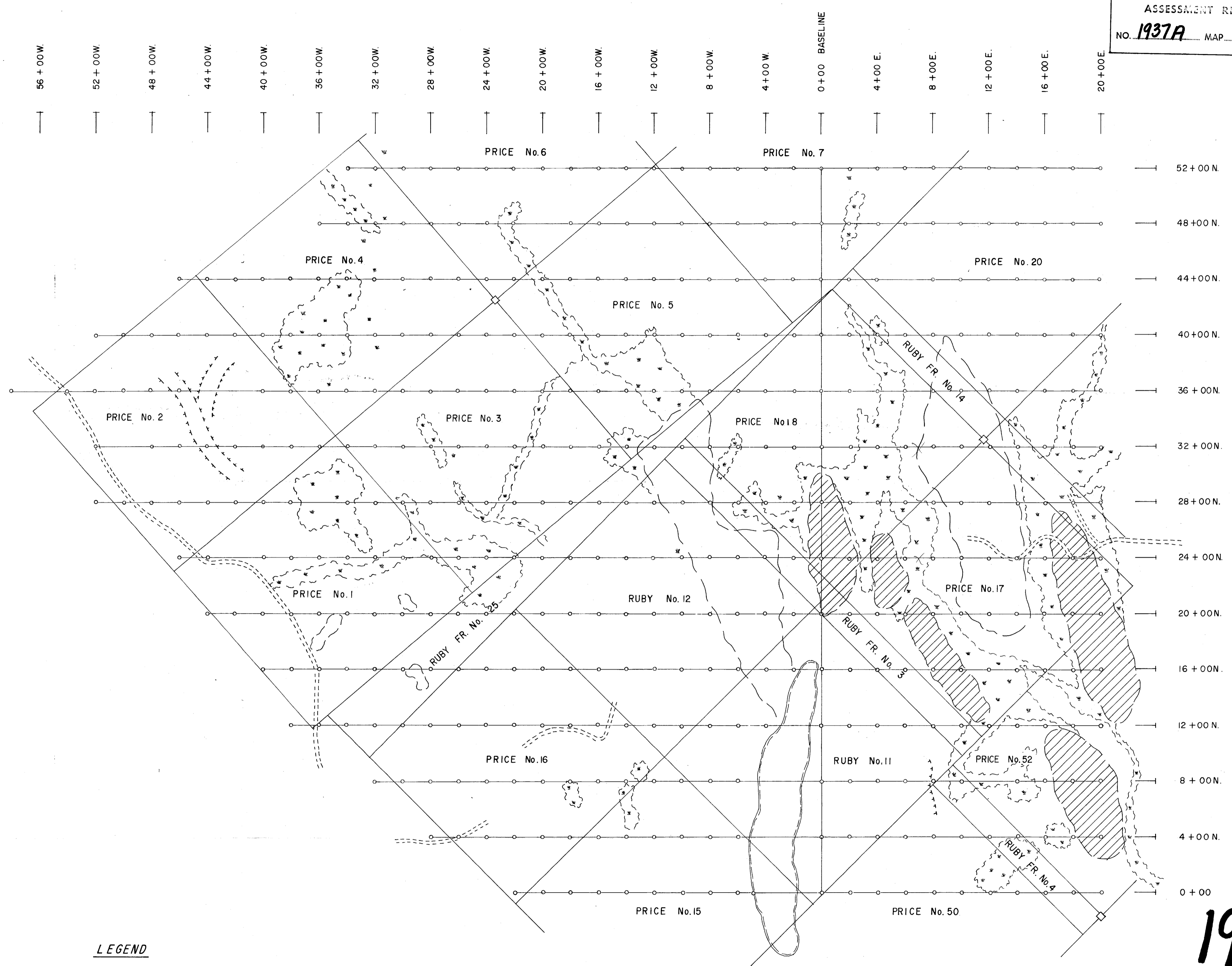
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Statutory Declaration
(CANADA EVIDENCE ACT)

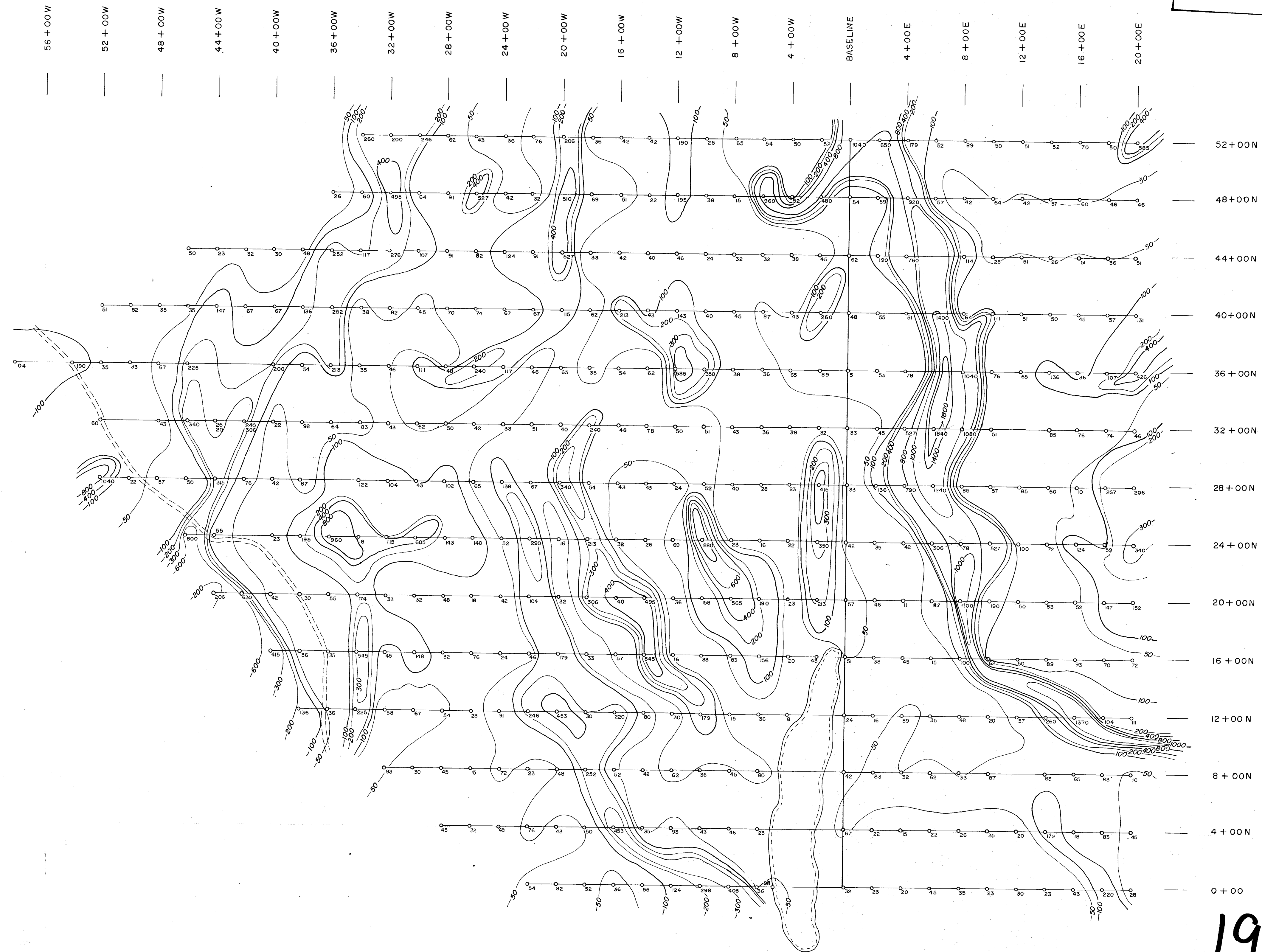


LEGEND

- — Sample Site
- ☁ — Swamp
- Topographic High
- ▨ — Topographic High - possibly of glacial origin
- Bluff
- Road

1937A
R.P.P.

AGILIS EXPLORATION SERVICES LTD.	
PATHFINDER URANIUM & NICKEL MINES LTD. ROSCOE LAKE PROPERTY HIGHLAND VALLEY, B.C.	
Base Map	
DRAWN BY: K. K.	SCALE: 1" = 400 Feet
CHECKED BY: R. P.	DATE: January, 1969

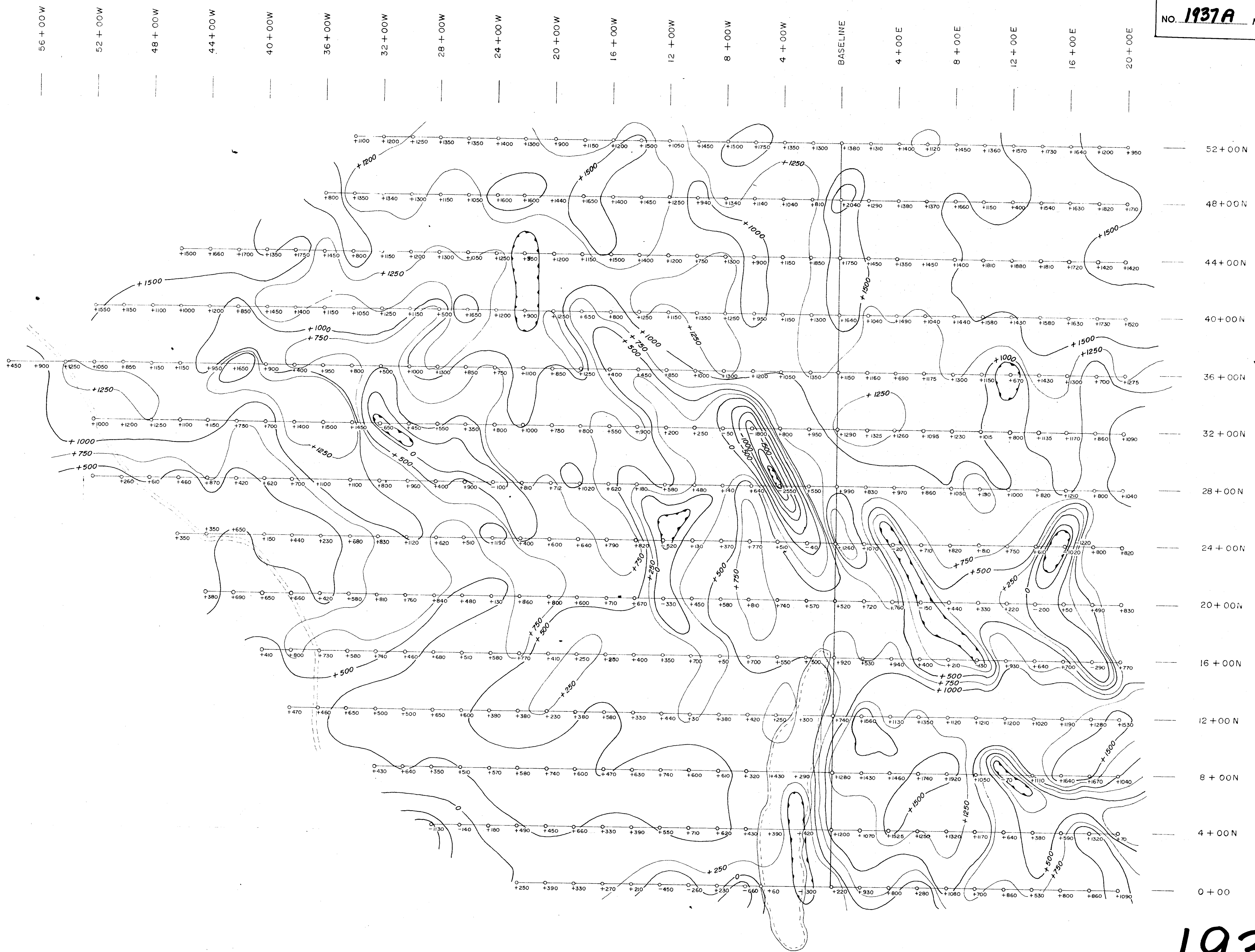


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LEGEND

- 220 — Copper values in p.p.m.
- 100— Copper contour in p.p.m.

AGILIS EXPLORATION SERVICES LTD.	
PATHFINDER URANIUM & NICKEL MINES LTD. ROSCOE LAKE PROPERTY HIGHLAND VALLEY B.C.	
GEOCHEMICAL SURVEY	
DRAWN BY: K. D. H.	SCALE: 1" = 400 Feet
CHECKED BY: R. P.	DATE: January, 1969



LEGEND

○ Values in gammas
+250
Contour interval - positive 250 gammas
negative 500 gammas

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AGILIS EXPLORATION SERVICES LTD.
PATHFINDER URANIUM
&
NICKEL MINES LTD.
ROSCOE LAKE PROPERTY
HIGHLAND VALLEY B.C.
MAGNETOMETER SURVEY
DRAWN BY: K. D. H. SCALE: 1" = 400 Feet
CHECKED BY: R. P. DATE: January, 1969